

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

**MICHAEL H. ROACH, on behalf of
himself and all others similarly situated,**

Plaintiffs,

v.

INTEL CORPORATION,

Defendant.

Civil Action No. _____

CLASS ACTION COMPLAINT

JURY TRIAL DEMANDED

Plaintiff Michael H. Roach, by and through his undersigned attorneys, and for his class action Complaint against Intel Corporation and its worldwide family of dominated subsidiaries, including Intel Kabushiki Kaisha (collectively “Intel”), aver on knowledge as to themselves and their own acts and on information and belief as to all other matters, as follows.

I. NATURE OF THE ACTION

1. Intel holds a monopoly in a market critical to the nation’s economy: microprocessors that run the Microsoft Windows and Linux families of operating systems (the “x86 Microprocessor Market”). While Advanced Micro Devices, Inc. and its subsidiary AMD International Sales & Service, Ltd. (collectively “AMD”) compete with Intel in this global market, Intel possesses unmistakable and undeniable market power, its microprocessor revenues accounting for approximately 90% of the worldwide total (and 80% of the units).

2. For over a decade Intel has unlawfully maintained its monopoly by engaging in a relentless, worldwide campaign to coerce customers to refrain from dealing

with AMD that has resulted in consumers paying higher prices for x86 microprocessors and left them with fewer buying choices for such microprocessors. Among other things:

- Intel has forced major direct customers into exclusive or near-exclusive deals;
- it has conditioned rebates, allowances and market development funding on direct customers' agreement to severely limit or forego entirely purchases from AMD;
- it has established a system of discriminatory, retroactive, first-dollar rebates triggered by purchases at such high levels as to have the practical and intended effect of denying customers the freedom to purchase any significant volume of processors from AMD;
- it has threatened retaliation against direct customers introducing AMD computer platforms, particularly in strategic market segments;
- it has established and enforced quotas among key retailers effectively requiring them to stock overwhelmingly, if not exclusively, Intel-powered computers, thereby artificially limiting consumer choice;
- it has forced PC makers and technology partners to boycott AMD product launches and promotions; and
- it has abused its market power by forcing on the industry technical standards and products which have as their central purpose the handicapping of AMD in the marketplace.

3. Intel's economic coercion of customers extends to all levels—from large computer-makers like Hewlett-Packard and IBM to small system-builders to wholesale distributors to retailers such as Circuit City. All must either accept conditions that exclude AMD or suffer discriminatory pricing and competitively crippling treatment. In this way, Intel has avoided competition on the merits and deprived AMD of the

opportunity to stake its prices and quality against Intel's for every potential microprocessor sale.

4. Intel's conduct has become increasingly egregious over the past several years as AMD has achieved technological leadership in critical aspects of microprocessor architecture. In April of 2003, AMD introduced its Opteron microprocessor, the first microprocessor to take x86 computing from 32 bits to 64 bits—an advance that allows computer applications to address exponentially more memory, thereby increasing performance and enabling features not possible with just 32 bits. Unlike Intel's 64-bit architecture of the time (Itanium), the AMD Opteron—as well as its subsequently-introduced desktop cousin, the AMD Athlon64—offers backward compatibility, allowing PC users to continue using 32-bit software as, over time, they upgrade their hardware. Bested in a technology duel over which it long claimed leadership, Intel increased exploitation of its market power to pressure customers to refrain from migrating to AMD's superior, lower-cost microprocessors.

5. Intel's conduct has caused computer manufacturers to continue to buy most of their requirements from Intel, continue to pay monopoly prices, continue to be exposed to Intel's economic coercion, and continue to submit to artificial limits Intel places on their purchases from AMD. With AMD's opportunity to compete thus constrained, the cycle continues, and Intel's monopoly profits continue to flow.

6. Consumers such as Plaintiffs ultimately foot this bill, in the form of inflated PC prices and the loss of freedom to purchase computer products that best fit their needs. Society is worse off for lack of innovation that only a truly competitive market can drive. The Japanese Government recognized these competitive harms when on March 8, 2005, its Fair Trade Commission (the "JFTC") recommended that Intel be sanctioned for its exclusionary misconduct directed at AMD. Intel chose not to contest the charges. *See* <<http://www.jfte.go.jp/e-page/pressreleases/2005/march/050308intel.pdf>>. The European Commission has also recently stepped up its investigation of

Intel's marketing practices. *See* <[http://news.com/EU+revisits+ Intel+probe/2100-7341_3-5228652.html?tag=nl](http://news.com/EU+revisits+Intel+probe/2100-7341_3-5228652.html?tag=nl)>. On July 12, 2005, it was confirmed that the Commission had conducted raids against Intel in Europe.

7. Recently, AMD has struck back by filing antitrust actions against Intel. On June 27, 2005, it filed an antitrust action against Intel in the United States District Court for the District of Delaware, revealing to the public for the first time many of Intel's unlawful practices. Many of the allegations in this Complaint are based on those revelations. On June 30, 2005, AMD also filed two antitrust suits in Japan against Intel Kabushiki Kaisha.

II. JURISDICTION AND VENUE

8. The Court has subject matter jurisdiction under 28 U.S.C. §1337 (commerce and antitrust regulation) and 28 U.S.C. §1331 (federal question), as this action arises under Section 2 of the Sherman Act (15 U.S.C. §2) and Sections 4 and 16 of the Clayton Act (15 U.S.C. §§15(a) and 26). The Court has supplemental subject matter jurisdiction of the pendent state law claims under 28 U.S.C. §1367.

9. Venue is proper because Intel is incorporated in this district and this complies with 28 U.S.C. §1391(b) and (c) and as provided in Sections 4 and 12 of the Clayton Act (15 U.S.C. §§15 and 22).

III. THE PARTIES

10. Plaintiff Michael H. Roach is a resident of Coronado, California. Within the last four years, Michael H. Roach purchased two desktop computers and one laptop computer each containing an Intel microprocessor.

11. Defendant Intel Corporation is a Delaware corporation with its principal executive offices at Santa Clara, California, and it conducts business both directly and through wholly-owned and dominated subsidiaries worldwide. Intel and its subsidiaries design, produce, and sell a wide variety of microprocessors, flash memory

devices, and silicon-based products for use in the computer and communications industries worldwide.

IV. CLASS ACTION ALLEGATIONS

12. Plaintiffs bring this suit as a class action pursuant to Rules 23(b)(2) and 23(b)(3) of the Federal Rules of Civil Procedure, on behalf of themselves and a Plaintiff Class (the “Class”) composed of and defined as follows:

All persons and entities residing in the United States who, during the last four years, purchased an x86 microprocessor in the United States indirectly from Intel. Specifically excluded from this Class are Intel; the officers, directors or employees of Intel; any entity in which Intel has a controlling interest; and any affiliate, legal representative, heir or assign of Intel. Also excluded are any federal, state or local governmental entities, any judicial officer presiding over this action and the members of his/her immediate family and judicial staff, and any juror assigned to this action.

13. This action has been brought and may be properly maintained as a class action pursuant to Rule 23 of the Federal Rules of Civil Procedure for the following reasons:

- a. The Class is ascertainable and there is a well-defined community of interest among the members of the Class;
- b. Based upon the nature of the trade and commerce involved and the number of indirect purchasers of x86 microprocessors, Plaintiffs believe that the members of the Class number in the thousands, and therefore is sufficiently numerous that joinder of all Class members is not practicable;
- c. Plaintiffs' claims are typical of the claims of the members of the Class because Plaintiffs indirectly purchased x86 microprocessors from Intel or its co-conspirators, and therefore Plaintiffs' claims arise from the same common course of conduct giving rise to the claims of the members of the Class and the relief sought is

common to the Class;

- d. The following common questions of law or fact, among others, exist as to the members of the Class:
 - i. whether Intel unlawfully monopolized and conspired to monopolize the x86 Microprocessor Market;
 - ii. whether Intel's conduct caused x86 microprocessor prices to be higher than they would have been in the absence of such conduct;
 - iii. the operative time period of Intel's unlawful conduct;
 - iv. whether Intel's conduct caused injury to the business or property of Plaintiffs and the members of the Class;
 - v. the appropriate measure of the amount of damages suffered by the Class;
 - vi. whether Intel's conduct violates Section 2 of the Sherman Act;
 - vii. whether Intel's conduct violates Sections 16720 and 17200 of the California Business and Professions Code and the California common law dealing with the tort of monopolization;
 - viii. whether Intel's conduct violates the antitrust, unfair competition and consumer protection laws of the other states as alleged below; and
 - ix. the appropriate nature of class-wide equitable relief.
- e. These and other questions of law or fact which are common to the members of the Class predominate over any questions affecting only individual members of the Class;
- f. After determination of the predominate common issues identified

above, if necessary or appropriate, the Class can be divided into logical and manageable subclasses;

- g. Plaintiffs will fairly and adequately protect the interests of the Class in that Plaintiffs have no interests that are antagonistic to other members of the Class and have retained counsel competent and experienced in the prosecution of class actions and antitrust litigation to represent themselves and the Class;
- h. A class action is superior to other available methods for the fair and efficient adjudication of this litigation since individual joinder of all damaged Class members is impractical. The damages suffered by individual Class members are relatively small, given the expense and burden of individual prosecution of the claims asserted in this litigation. Thus, absent the availability of class action procedures, it would not be feasible for Class members to redress the wrongs done to them. Even if the Class members could afford individual litigation, the court system could not. Further, individual litigation presents the potential for inconsistent or contradictory judgments and would greatly magnify the delay and expense to all parties and to the court system. Therefore, the class action device presents far fewer case management difficulties and will provide the benefits of unitary adjudication, economy of scale and comprehensive supervision by a single court;
- i. Intel has acted, and refused to act, on grounds generally applicable to the Class, thereby making appropriate final injunctive relief with respect to the Class as a whole; and
- j. In the absence of a class action, Intel would be unjustly enriched because they would be able to retain the benefits and fruits of their

wrongful conduct.

- k. The Claims in this case are also properly certifiable under the laws of the State of California, and of the other individual states identified below in the Fifth and Sixth Claims for Relief.

V. INITIAL FACTUAL BACKGROUND

A. Early History

14. The brain of every computer is a general-purpose microprocessor, an integrated circuit capable of executing a menu of instructions and performing requested mathematical computations at very high speed. Microprocessors are defined by their instruction set—the repertoire of machine language instructions that a computer can follow. So, too, are computer operating systems—software programs that perform the instructions in the set allowing the computer to perform meaningful tasks. The first generation of microprocessors, which were capable of handling 4 and then later 8 bits of data simultaneously, evolved to provide 16-bit capability (the original DOS processors), then sometime later a 32-bit capability (allowing the use of advanced graphical interfaces such as later versions of Windows), and now 64-bit capability.

15. When IBM defined the original PC standards in the early 1980s, it had available to it a variety of microprocessors, each with its own instruction set—among these were microprocessors developed by Motorola, Zilog, National Semiconductor, Fairchild, Intel and AMD. IBM opted for the Intel architecture, which utilized what became known as the x86 instruction set (after Intel’s naming convention for its processors, *i.e.*, 8086, 80186, 80286, 80386), and a compatible operating system offered by Microsoft, known as DOS. Unwilling to be consigned to a single source of supply, however, IBM demanded that Intel contract with another integrated circuit company and license it to manufacture x86 chips as a second source. AMD, which had worked with Intel before in supplying microprocessors, agreed to abandon its own, competing architecture, and it undertook to manufacture x86 chips as a second source of supply.

Assured that it would not be dependent upon a monopoly supplier of x86 chips, IBM introduced the PC in August 1981—and its sales exploded.

16. Although, as discussed below, an arbitrator later found that “AMD’s sponsorship helped propel Intel from the chorus line of semiconductor companies into instant stardom,” Intel soon set out to torpedo the 1982 AMD-Intel Technology Exchange Agreement (the “Agreement”) by which each would serve as a second source for products developed by the other. For example, Intel was required by the Agreement to send AMD timely updates of its second generation 80286 chip. Instead, in a “deliberate[]” effort “to shackle AMD progress,” Intel sent AMD information “deliberately incomplete, deliberately indecipherable and deliberately unusable by AMD engineers.” The conduct was, in the arbitrator’s words, “inexcusable and unworthy.” And it was not isolated. Intel elsewhere tried to “sabotage” AMD products, engaged in “corporate extortion” and demonstrated a near-malevolent determination “to use all of its economic force and power on a smaller competitor to have its way.”

17. In another underhanded effort to stifle AMD’s business, Intel decided in 1984 that, the agreement between the parties notwithstanding, Intel would become the sole-source for the promising 80386 chip. To fully realize its objective, Intel engaged in an elaborate and insidious scheme to mislead AMD (and the public) into erroneously believing that AMD would be a second source, thereby keeping AMD in the Intel “competitive camp” for years. This duplicitous strategy served a broader purpose than simply preventing AMD from competing with Intel. Customers’ perception that AMD would continue to serve as Intel’s authorized second source was essential to Intel’s aim of entrenching the x86 family of microprocessors as the industry standard (as it had been essential to IBM’s original introduction of the PC). Intel was well aware that if computer manufacturers knew Intel intended to sole source its 32-bit product, they would be motivated to select alternative products produced by companies offering second

sources. Intel could not preserve the appearance that AMD would second source the 386 if it terminated the contract or otherwise disclosed its actual intent. Thus, Intel stalled negotiations over product exchanges, while at the same time allowing AMD to believe that it could ultimately obtain the 386. This injured competition by deterring and impeding serious competitive challenges to Intel and directly injured AMD by depriving it of the revenues and profits it would have earned from such a challenge.

18. Intel implemented this secret plan for the purpose of acquiring and maintaining an illegal monopoly in the x86 line of microprocessors, which it did by at least 1987. As was its plan, Intel's conduct drained AMD's resources, delayed AMD's ability to reverse-engineer or otherwise develop and manufacture competitive products, and deterred AMD from pursuing relationships with other firms. In so doing, Intel wrongfully secured the benefit of AMD's marketing skills and talent in support of the x86 line of microprocessors and related peripherals and secured the benefit of substantial competitively sensitive AMD information regarding its product development plans. When AMD petitioned to compel arbitration in 1987 for Intel's breach and bad faith, the arbitrator took notice of Intel's anticompetitive design: "In fact, it is no fantasy that Intel wanted to blunt AMD's effectiveness in the microprocessor marketplace, to effectively remove AMD as a competitor."

19. In 1992, after five years of litigation, the arbitrator awarded AMD more than \$10 million plus prejudgment interest and a permanent, nonexclusive and royalty-free license to any Intel intellectual property embodied in AMD's own 386 microprocessor, including the x86 instruction set. Confirmation of the award was upheld by the California Supreme Court two years later. *Advanced Micro Devices, Inc. v. Intel Corp.*, 9 Cal. 4th 462, 885 P.2d 994, 36 Cal. Rptr. 2d 581 (1994).

B. AMD Moves from Second Source to Innovator

20. Shortly after confirmation of the award, AMD settled its outstanding disputes with Intel in a 1995 agreement which gave AMD a shared interest in

the x86 instruction set but required it to develop its own architecture to implement those instructions. The settlement had the unintended benefit of forcing AMD to reinvent itself. Beginning in the late 1990s, AMD committed its resources to innovating not just to be different, but to deliver solutions of greatest benefit to its customers. AMD's first x86 chip without Intel pin-compatibility, the Athlon microprocessor delivered in 1999, marked the first (but not last) time AMD was to leapfrog Intel technologically and beat it to market with a new generation Windows microprocessor (and break the 1GHz speed barrier to boot).

21. AMD's biggest breakthrough came four years later when it introduced an extension of x86 architecture that took Windows processors into the realm of 64-bit computing. Unlike Intel, which invested billions in its Itanium microprocessor and a new, uniquely 64-bit proprietary instruction set (which, because it was proprietary, would have been a game-ending development for AMD had it become the industry standard), AMD undertook to supplement the x86 instructions to accommodate 64-bit processing while allowing 32-bit software to be run as well. AMD's efforts culminated when, in April of 2003, it brought to market its Opteron microprocessor for servers (the workhorse computers used by businesses to run corporate networks, e-commerce websites and other high-end, computationally-intense applications). Opteron was the industry's first x86 backward compatible 64-bit chip. Six months later, AMD launched the Athlon64, a backward compatible 64-bit microprocessor for desktops and mobile computers.

22. The computing industry hailed AMD's introduction of 64-bit computing as an engineering triumph. *InfoWorld* in its August 27, 2004 issue stated:

You just gotta love a Cinderella story. ... AMD's rapid rise from startup to \$5 billion semiconductor powerhouse is, as Humphrey Bogart's English teacher once said, the stuff of which dreams are made. ... In the process, AMD has become known as the company that kept Intel honest, the Linux of the semiconductor world. ... After decades of aping Intel architectures, the AMD64 architecture, rooted in Opteron and Athlon 64 processors, has actually been

imitated by Intel in the form of Nocona, Intel's 64-bit version of Xeon. In a stunning reversal of fortune, Intel was forced to build that chip because Opteron was invading a server market that the Intel Itanium was supposed to dominate.
 (<http://www.infoworld.com/article/04/08/27/35FEamd_1.html?s=feature>.)

Microsoft endorsed AMD's 64-bit instruction set and announced that Windows would support it. As noted by *InfoWorld*, Intel then copied AMD's technology for its own 64-bit offerings—an event that poignantly marked AMD's technological emergence.

23. AMD has since extended its AMD64 technology to the balance of AMD's microprocessor line-up (which now includes AMD Athlon 64, AMD Athlon 64 FX, Mobile AMD Athlon 64, AMD Sempron, and AMD Turion64 products). Owing also to AMD's pioneering developments in dual-core processors and its introduction of an improved architecture that speeds up microprocessor communications with memory and input/output devices, AMD has seized technological leadership in the microprocessor industry. Its innovation has won for it over 70 technology leadership and industry awards and, in April 2005, the achievement of being named "Processor Company of 2005" at, to Intel's embarrassment, an Intel-sponsored industry awards show.

24. AMD's market share has not kept pace with its technical leadership. Intel's misconduct is the reason. Intel has unlawfully maintained the monopoly IBM bestowed on it and systematically excluded AMD from any meaningful opportunity to compete for market share by preventing the companies that buy chips and build computers from freely deploying AMD processors; by relegating AMD to the low-end of the market; by preventing AMD from achieving the minimum scale necessary to become a full-fledged, competitive alternative to Intel; and by erecting impediments to AMD's ability to increase its productive capacity for the next generation of AMD's state of the art microprocessors.

VI. THE x86 PROCESSOR INDUSTRY

A. Competitive Landscape

25. The x86 versions of Windows and Linux, the two operating systems that dominate the business and consumer computer worlds, have spawned a huge installed base of Windows- and Linux-compatible application programs that can only run the x86 instruction set. This has given Intel effective ownership of personal computing. Although other microprocessors are offered for sale, the non-x86 microprocessors are not reasonably interchangeable with x86 microprocessors because none can run the x86 Windows or Linux operating systems or the application software written for them.

26. The relevant product market is x86 microprocessors because a putative monopolist in this market would be able to raise the prices of x86 microprocessors above a competitive level without losing so many customers to other microprocessors as to make this increase unprofitable. While existing end-users can theoretically shift to other operating system platforms, high switching costs associated with replacing existing hardware and software make this impractical. Further, the number of new, first-time users who could choose a different operating-system platform is too small to prevent an x86 microprocessor monopolist from imposing a meaningful price increase for a non-transitory period of time. Computer manufacturers would also encounter high switching costs in moving from x86 processors to other architectures, and no major computer maker has ever done it. In short, demand is not cross-elastic between x86 microprocessors and other microprocessors at the competitive level.

27. The relevant geographic market for x86 microprocessors is worldwide. A relevant geographic submarket is the United States. A worldwide geographic market is appropriate because Intel and AMD compete globally; PC platform architecture is the same from country to country; microprocessors can be easily and inexpensively shipped around the world, and frequently are; and the potential for

arbitrage prevents chipmakers from pricing processors differently in one country than another. A geographic submarket consisting of the United States is appropriate, as well.

28. Intel dominates the worldwide x86 Microprocessor Market.

According to published reports, over the past several years it has consistently achieved more than a 90% market share as measured by revenue, while AMD's revenue share has remained at approximately 9%, with all other microprocessor manufacturers relegated to less than 1%. Intel has captured at least 80% of x86 microprocessor unit sales in seven of the last eight years. Since 1999, AMD's worldwide volume share has hovered at 15%, only once penetrating barely the 20% level. The following chart is illustrative:

x86 Worldwide CPU Unit Market Share

	1997	1998	1999	2000	2001	2002	2003	2004
Intel	85.0%	80.3%	82.2%	82.2%	78.7%	83.6%	82.8%	82.5%
AMD	7.3%	11.9%	13.6%	16.7%	20.2%	14.9%	15.5%	15.8%
Others	7.5%	7.9%	4.2%	1.1%	1.1%	1.4%	1.7%	1.7%

29. Intel's x86 family of microprocessors no longer faces any meaningful competition other than from AMD. National Semiconductor acquired Cyrix in 1997 but shuttered it less than two years later. At the beginning of this year only two other x86 chip makers remained, Via Technologies, Inc. and Transmeta Corporation—which together account for less than 2% of the market. Transmeta has since announced its intention to cease selling x86 microprocessors, and Via faces dim prospects of growing its market share to a sustaining level.

30. Intel is shielded from new competition by huge barriers to entry. A chip fabrication plant ("fab") capable of efficiently mass-producing x86 microprocessors carries a price tag of at least \$2.5 to \$3.0 billion. In addition, any new entrant would need the financial wherewithal to underwrite the billions more in research

and development costs to design a competing x86 microprocessor and to overcome almost insurmountable IP and knowledge barriers.

B. Customers for x86 microprocessors

31. Annual worldwide consumption of x86 microprocessors currently stands at just over 200 million units per year and is expected to grow by 50% over the remainder of the decade. Relatively few microprocessors are sold for server and workstation applications (8.75 million in 2004), but these command the highest prices. Most x86 microprocessors are used in desktop PCs and mobile PCs, with desktops currently outnumbering mobile by a margin of three to one. Of the total worldwide production of computers powered by x86 microprocessors, 32% are sold to U.S. consumers; U.S. sales of AMD-powered computers account for 29% of AMD's production.

32. The majority of x86 microprocessors are sold to a handful of large OEMs (original equipment manufacturers), highly visible companies recognized throughout the world as the leading computer makers. Regarded by the industry as "Tier One" OEMs over most product categories are: Hewlett-Packard ("HP"), which now also owns Compaq Computer ("Compaq"); Dell, Inc. ("Dell"); IBM, which as of May 1, 2005, sold its PC (but not server) business to Lenovo; Gateway/eMachines; and Fujitsu/Fujitsu Siemens ("Fujitsu"), the latter a Europe-based joint venture. Toshiba, Acer, NEC and Sony are also commonly viewed as Tier One OEMs in the notebook segment of the PC market. HP and Dell are the dominant players, collectively accounting for over 30% of worldwide desktop and mobile sales, and almost 60% of worldwide server sales. Both are U.S.-based companies, as are IBM and Gateway/eMachines; and all but Gateway have U.S. manufacturing operations (as does Sony, which operates a North American production facility in San Diego).

33. Worldwide, the Tier One OEMs collectively account for almost 80% of servers and workstations (specialty high-powered desktops), more than 40% of

worldwide desktop PCs, and over 80% of worldwide mobile PCs. According to industry publications, unit market share in 2004 among the Tier One OEMs were as follows:

OEM Market Shares—2004
Company Server/WS Desktop Mobile

Hewlett-Packard	29.86%	13.69%	16.23%
Dell	28.34%	16.18%	17.27%
IBM/Lenovo	14.46%	3.69%	9.20%
Fujitsu/Siemens	3.70%	2.83%	6.88%
Acer	0.81%	1.85%	8.53%
Toshiba	0.31%	0.05%	12.73%
NEC	2.06	2.02%	4.50%
Sony	--	0.76%	4.23%
Gateway/eMachines	0.16%	2.48%	1.45%
Total	79.70%	43.55%	81.02%

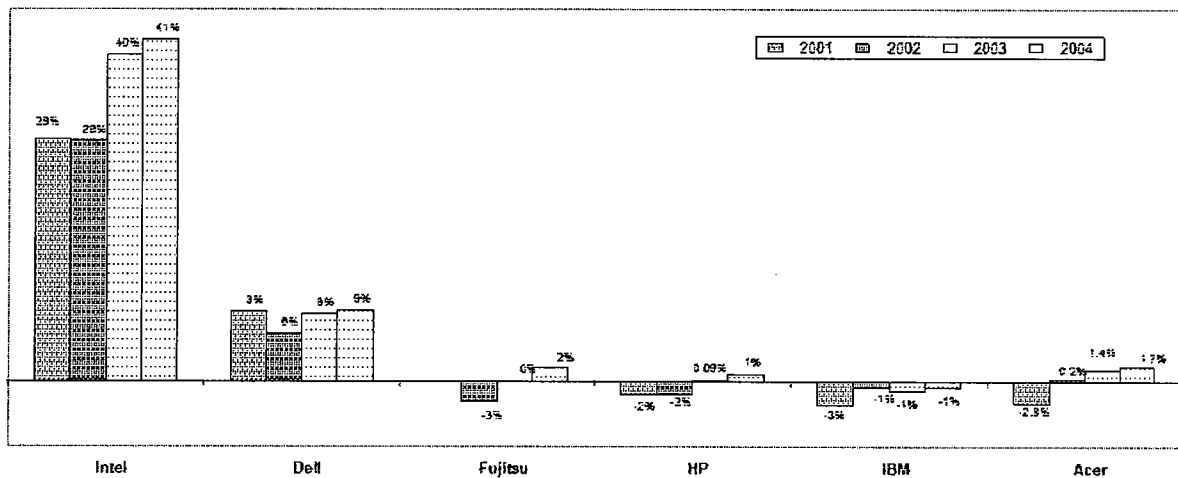
34. The balance of x86 production is sold to smaller system builders and to independent distributors. The latter, in turn, sell to smaller OEMs, regional computer assemblers, value-added resellers and other, smaller distributors. Currently, distributors account for over half of AMD's sales.

35. OEMs have adopted a variety of business models, including sales directly to customers through web-based e-commerce, sales through company-employed sales staffs (who target IT professionals and Fortune 1000 companies) and sales through a network of independent distributors (who focus on smaller business customers). With the exception of Dell, which markets to consumers only directly (mostly over the internet), most OEMs also sell through retail chains. Intel and AMD compete not only to have OEMs incorporate their microprocessors into their retail platforms but also to convince retailers to allocate shelf-space so that the platforms containing their respective microprocessors can be purchased in the retailers' stores.

36. Through its economic muscle and relentless marketing—principally its "*Intel Inside*" and "*Centrino*" programs which financially reward OEMs

for branding their PCs as Intel machines—Intel has transformed the OEM world. While once innovative companies themselves, the OEMs have largely become undifferentiated distributors of the Intel platform, offering “*Intel Inside*” and “*Centrino*” computers largely indistinguishable from those of their rivals. As their products have become commoditized, the Tier One OEMs operate on small or negative margins, and, as shown in the following chart, the overwhelming portion of PC profit flows to Intel.

Operating Margins 2001-04—Intel vs. OEMs



37. This profit drain has left OEMs and others in the distribution chain in a quarter-to-quarter struggle to eke out even a modest return on their assets, thereby making them continually susceptible to Intel’s economic coercion, which is described next.

VII. INTEL’S UNLAWFUL PRACTICES

38. Intel has maintained its x86 microprocessor monopoly by deploying a host of financial and other exclusionary business strategies that in effect limit its customers’ ability and/or incentive to deal with AMD. Although differing from customer to customer and segment to segment, the Intel arsenal includes direct payments in return for exclusivity and near-exclusivity; discriminatory rebates, discounts and subsidies conditioned on customer “loyalty” that have the practical and intended effect of

creating exclusive or near-exclusive dealing arrangements; threats of economic retaliation against those who give, or even contemplate giving, too much of their business to AMD, or who refuse to limit their AMD business to Intel-approved models, brands, lines and/or sectors, or who cooperate too closely with AMD's promotion of its competitive processors; and misuse of industry standards-setting processes so as to disadvantage AMD products in the marketplace. As a result of these practices, consumers pay inflated prices for x86 microprocessors and equipment containing them, and have fewer competitor choices for such microprocessors.

39. Intel's misconduct is global. It has targeted both U.S. and offshore customers at all levels to prevent AMD from building market share anywhere, with the goal of keeping AMD small and keeping Intel's customers dependent on Intel for very substantial amounts of product. In this way, OEMs remain vulnerable to continual threats of Intel retaliation, AMD remains capacity-constrained, the OEMs remain Intel-dependent, and Intel thereby perpetuates its economic hold over them, allowing it to continue to demand that customers curtail their dealings with AMD. And the cycle repeats itself: by unlawfully exploiting its existing market share, Intel is impeding competitive growth of AMD, thereby laying foundation for the next round of foreclosing actions with the effect that AMD's ability to benefit from its current technological advances is curtailed to the harm of potential customers and consumers.

40. The following is not intended as an exhaustive catalog of Intel's misconduct, or a complete list of its unlawful acts, but only as examples of the types of improper exclusionary practices that Intel has employed.

A. Practices Directed At OEMs.

1. Exclusive and Near-Exclusive Deals.

41. **Dell.** In its history, Dell has not purchased a single AMD x86 microprocessor despite acknowledging Intel shortcomings and customer clamor for AMD

solutions, principally in the server sector. As Dell's President and CEO, Kevin Rollins, said publicly last February:

Whenever one of our partners slips on either the economics or technology, that causes us great concern. ... For a while, Intel admittedly slipped technologically and AMD had made a step forward. We were seeing that in customer response and requests.
(http://www.findarticles.com/p/articles/mi_zdext/is_200502/ai_n102988977.)

42. Nonetheless, Dell has been and remains Intel-exclusive.

According to industry reports, Intel has bought Dell's exclusivity with outright payments and favorable discriminatory pricing and service. In discussions about buying from AMD, Dell executives have frankly conceded that they must financially account for Intel retribution in negotiating pricing from AMD.

43. **Sony.** With the introduction of its Athlon microprocessor in 1999, AMD began to make notable inroads into Intel's sales to major Japanese OEMs, which export PCs internationally including into the U.S. By the end of 2002, AMD had achieved an overall Japanese unit market share of approximately 22%. To reverse the erosion of its business, in 2003 Intel paid Sony multimillion dollar sums, disguised as discounts and promotional support, in exchange for absolute microprocessor exclusivity. Sony abruptly cancelled an AMD Mobile Athlon notebook model. Soon thereafter, it cancelled plans to release AMD Athlon desktop and notebook computers. As a result, AMD's share of Sony's business dropped from 23% in 2002 to 8% in 2003, and then to 0%, where it remains today. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Sony.

44. **Toshiba.** Like Sony, Toshiba was once a significant AMD customer, but also like Sony, Toshiba received a very substantial payment from Intel in 2001 not to use AMD processors. Toshiba thereupon dropped AMD. Its executives agreed that Intel's financial inducements amounted to "cocaine," but said they were hooked because reengaging with AMD would jeopardize Intel market development funds

estimated to be worth \$25-30 million per quarter. Toshiba made clear to AMD that the tens of millions of dollars of additional marketing support was provided on the explicit condition that Toshiba could not use AMD microprocessors. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Toshiba.

45. **NEC.** AMD also enjoyed early success with NEC, capturing nearly 40% of its microprocessor purchases for notebooks and desktops in the first quarter of 2002. In May 2002, Intel agreed to pay NEC more than 300 million yen per quarter in exchange for caps on NEC's purchases from AMD. The caps assured Intel at least 90% of NEC's business in Japan, and they established an overall worldwide quota on NEC's AMD dealings. The impact was immediate. While AMD had maintained an 84% share of NEC's Japanese consumer desktop business in the third quarter of 2002, after the payments, AMD's share quickly plummeted to virtually zero in the first quarter of 2003. NEC has made clear to AMD that its Japanese share must stay in the single digits pursuant to NEC's agreement with Intel. Worldwide, AMD's share dipped from nearly 40% to around 15%, where it stands today. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to NEC.

46. **Fujitsu.** In the summer of 2002, Fujitsu informed AMD that Intel had pressured Fujitsu to remove Fujitsu's AMD-powered desktop models from Fujitsu's website. Fujitsu complied by making any potential AMD-buyer click past Intel products to get to the AMD offerings. Then, in early 2003, Intel moved to lock up an even greater share of Fujitsu's business. Intel offered an undisclosed package of financial incentives in return for Fujitsu's agreement to restrict its dealings with AMD. Fujitsu's catalog currently limits AMD to a single notebook product. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Fujitsu.

47. **Hitachi.** According to the JFTC, Intel has also purchased an exclusive-dealing arrangement with Hitachi, which had been a substantial AMD customer. The agreement caused AMD's Hitachi business to fall precipitously. For

example, during the first part of 2002, AMD was shipping 50,000 Athlon microprocessors to Hitachi per quarter. But by the middle of the year, AMD sold no microprocessors to Hitachi at all. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Hitachi.

48. **Gateway/eMachines.** From 2001 to 2004, Gateway was exclusively Intel. In 2001, former Gateway CEO Ted Waitt explained to an AMD executive that Intel offered him large sums not to deal with AMD, which he could not refuse: "I have to find a way back to profitability. If by dropping you, I become profitable, that is what I will do." Shortly thereafter, Gateway stopped purchasing from AMD and issued a press release announcing its Intel exclusivity. The announcement came within weeks of similar public announcements of Intel exclusivity by both IBM and Micron.

49. **Supermicro.** Intel's exclusive dealing also extends to small, specialty OEMs of which Supermicro is a good example. Supermicro, the preeminent system assembler for servers and other high-end computers, historically has followed the Dell strategy of never buying from AMD. This arrangement foreclosed AMD from a large part of the approximately one fifth of the server sector not controlled by the Tier One OEMs. Following two years of negotiation, Supermicro finally agreed last year to begin developing an Opteron-powered server; however, it so feared Intel retaliation that it secretly moved the AMD development to quarters behind Supermicro's main manufacturing facility. Further, it forbade AMD from publicizing the product or beginning any marketing prior to its actual release. When, in April 2005, Supermicro finally broke away from years of Intel exclusivity, it restricted distribution of its newly-released Opteron-powered product to only sixty of its customers and promoted them with a glossy, upscale brochure devoid of its name and labeled "secret and confidential."

2. Product-Line, Channel or Geographic Restrictions.

50. Intel has also bought more limited exclusivity from OEMs in order to exclude AMD from the most profitable lines or from channels of distribution best tailored to take advantage of AMD's price/performance advantage over Intel. In exchange for discriminatory discounts, subsidies or payments, for example, Intel has largely foreclosed AMD from the lucrative commercial desktop sector. Intel has focused on the major OEMs because, when IT executives from Fortune 1000 companies purchase desktop computers, they look for a strong brand on the box—Dell, IBM or HP. Knowing this, Intel has relentlessly fought to block the introduction of an AMD-powered commercial desktop by the major OEMs who have not ceded total exclusivity to Intel. What follows, again, are only representative examples of Intel misconduct.

51. **HP.** In 2002, when AMD set out to earn a place in HP's commercial desktop product roadmap, HP demanded a \$25 million quarterly fund to compensate it for Intel's expected retaliation. Eager to break into the commercial market, and to earn a place in HP's successful "Evo" product line, AMD agreed instead to provide HP with the first million microprocessors for free in an effort to overcome Intel's financial hold over HP. On the eve of the launch, HP disclosed its plan to Intel, which told HP it considered AMD's entry into HP's commercial line a "Richter 10" event. It immediately pressured HP into (1) withdrawing the AMD offering from its premier "Evo" brand and (2) withholding the AMD-powered computer from HP's network of independent value-added resellers, the HP's principal point of access to small business users for whom the computer was designed in the first place. Intel went so far as to pressure HP's senior management to consider firing the HP executive who spearheaded the AMD commercial desktop proposal. As a result of Intel's coercion, the HP-AMD desktop offering was dead on arrival. HP ended up taking only 160,000 of the million microprocessors AMD offered for free. As of today, HP's AMD-equipped commercial

desktops remain channel-restricted, and AMD's share of this business remains insignificant.

52. Intel also purchased HP's exclusivity for its most popular notebook line. HP captured 15% of the U.S. retail market last Christmas with an Intel-powered 14.1" display notebook (the "DV 1000") with a popular power saving feature called Quick Play. When AMD sought to convince HP to carry a similar AMD-powered notebook, HP declined. It explained that Intel had paid between \$3 and \$4 million to lock up this product line for at least one year.

53. **Gateway.** After Gateway's 2004 merger with eMachines, AMD attempted to revive the relationship it had enjoyed with Gateway until 2001, but experienced extremely limited success. While Gateway built one AMD-powered desktop model at the request of Circuit City, AMD remains locked out entirely of Gateway's direct internet sales, its commercial offerings and its server line. According to Gateway executives, their Company has paid a high price for even its limited AMD dealings. They claim that Intel has beaten them into "guacamole" in retaliation.

54. **IBM.** AMD and IBM began negotiations in August 2000 over a proposed commercial PC business partnership. After seven months and with a deal nearing completion, Intel approached IBM with an incentive-based program under which Intel would become IBM's "preferred supplier" for processors in commercial products. "Preferred" meant exclusive. IBM accepted Intel's proposal and terminated discussions with AMD. In return for that exclusivity, according to IBM executive Ed Thum, Intel paid IBM "millions of dollars in market development funds."

55. Intel also acted to thwart AMD efforts to partner with IBM on servers. Although IBM joined AMD as a launch partner when it introduced its Opteron 64-bit server chip in April 2003—signaling to the industry and IT professionals its confidence in the product—Intel soon dissuaded IBM from aggressively marketing Opteron servers. After investing heavily in its design, IBM consigned its one Opteron

computer model to a single target market segment (High Performance and Technical Computing). This was done, according to an industry report (confirmed by an IBM executive), because Intel paid IBM to shelve any further Opteron development. IBM also took Intel money in 2004 to scrap plans for a multiple-microprocessor Opteron server it had already designed and previewed with customers.

56. Intel has also purchased IBM exclusivity in its “ThinkCentre” line of commercial desktops. When AMD pressed IBM to add an Athlon 64 model to its “ThinkCentre” roadmap, IBM executives explained that the move would cost them important Intel subsidies, and they declined.

57. **Fujitsu.** In 2002, Fujitsu and AMD formed an alliance to develop a low-power commercial notebook (FMV Lifebook MG Series) scheduled to go to market in the first quarter of 2003, which AMD spent over 20 million yen designing. Shortly before the launch, Fujitsu told AMD that Intel would not allow it to launch an AMD-powered commercial notebook, and the project died. To this day, AMD remains locked out of Fujitsu’s commercial notebook lines. Intel’s exclusionary conduct with Fujitsu extends beyond commercial notebooks. In the consumer space, for example, Intel purchased total exclusivity for Fujitsu’s FM-Biblo NB consumer notebook line. When AMD tried to break Intel’s lock on Fujitsu notebooks by offering to match any Intel discount, Fujitsu made clear that there was no price AMD could pay because Intel simply would not allow it. To this day, AMD remains locked out of Fujitsu’s Biblo line.

58. **Fujitsu-Siemens.** Fujitsu-Siemens, a European joint-venture, was once a mainstay for AMD’s desktop business, with AMD chips powering over 30% of Fujitsu-Siemens’ offerings in the consumer sector. In early 2003, Intel offered Fujitsu-Siemens a “special discount” on Celeron processors which Fujitsu-Siemens accepted in exchange for hiding its AMD computers on its website and removing all references to commercial AMD-powered products in the company’s retail catalog.

59. Intel has also succeeded in convincing Fujitsu-Siemens to impose market restrictions on its AMD-powered PCs. Its parent, Fujitsu, currently sells an AMD-equipped Lifebook S2010, a commercial notebook, but only in the U.S. and Japan. Fujitsu-Siemens has declined AMD's plea to offer the machine in the European market as well. Similarly, Fujitsu-Siemens designed for the European market the FMC Lifebook MG Series notebook. But it refused to offer that computer in Asia or North America. Finally, although Fujitsu-Siemens produces an AMD commercial desktop, the Scenico, it refuses to advertise it on its website, offering it instead only as a build-to-order product. Having invested significantly to bring these computers to market, Fujitsu-Siemens has been able to offer no explanation for its refusal to exploit them worldwide. AMD's unit share of Fujitsu-Siemens' business recently fell below 30% for the first time in four years.

60. **NEC.** Intel was forced to relax its hold on NEC's business when long-time NEC customer, Honda Motor Company, demanded that NEC supply it with servers powered by AMD's Opteron microprocessors. After underwriting the considerable expense of designing and manufacturing an Opteron server for Honda, NEC then inexplicably refused to market the product to any of its other customers.

61. There is no reason, other than Intel's chokehold on the OEMs, for AMD's inability to exploit its products in important sectors, particularly commercial desktops. These computers, which large corporate customers buy in the tens of thousands at a time, represent a lucrative opportunity for the supplier. Yet, the microprocessors that power them are identical to microprocessors in consumer computers, a sector in which AMD has won both praise and market share. The only material difference between the consumer and commercial segments is that many more system builders supply desktops to consumers, making it more difficult for Intel to control their microprocessor choice.

3. Exclusionary Rebates.

62. Intel has also imposed on OEMs a system of first-dollar rebates that have the practical and intended effect of creating exclusive or near-exclusive dealing arrangements and artificially foreclosing AMD from competing for a meaningful share of the market. In general, the rebate schemes operate as follows: quarterly, Intel unilaterally establishes for each of its customers a target level of purchases of Intel microprocessors. If the customer achieves the target, it is entitled to a rebate on all of the quarter's purchases of all microprocessors—back to the very first one—generally in the neighborhood of 8-10% of the price paid. Intel provides the rebate in cash at the quarter's close. OEMs operate on razor-thin margins, so qualifying for an Intel rebate frequently means the difference between reporting a profit or a loss in the coming—and closely watched—quarterly earnings.

63. In contrast to “volume discounts” that sellers offer on a graduated and nondiscriminatory basis to reflect cost efficiencies that accrue when dealing in larger quantities, Intel's is a system of “penetration” or “loyalty” rebates designed to exclude AMD from a substantial portion of the market. Intel intentionally sets a rebate trigger at a level of purchases it knows to constitute a dominant percentage of a customer's needs. It is able to develop discriminatory, customer-by-customer unit or dollar targets that lock that percentage (without ever referencing it) because industry publications accurately forecast and track anticipated sales and because OEM market shares—which industry publications also report weekly, monthly and quarterly—do not change significantly quarter to quarter.

64. Intel's retroactive discounts can operate to price microprocessors so low that AMD is put at a competitive disadvantage it cannot overcome. Consider an OEM which anticipates purchasing 100 microprocessors that both Intel and AMD sell for \$100 each. Intel knows that because of its prior model introductions, the customer will have to buy 60 from Intel. The customer considers buying its expected balance for its

new models from AMD, but Intel offers it a rebate that will entitle it to a 10% retroactive discount if, but only if, it purchases 90 units or more. If the customer buys 30 of the 40 additional units from Intel to qualify for the rebate, its incremental cost for the 30 will be \$3,000 (30 units at \$100/unit) less the 10% rebate going back to the first unit it purchased, which amounts to \$900 (90 units x \$10/unit), for a total of \$2,100.

65. AMD can only capture the 30 units if it offers a price that makes the customer indifferent between getting the Intel rebate and getting an overall equivalent deal on AMD microprocessors. Thus, for those 30 units, AMD would have to lower its price to \$70 per unit (because 30 units x \$70/unit equals the \$2,100 net cost for buying from Intel). In effect, the rebate forces AMD to charge \$20 dollars less than the \$90 discounted Intel price if it attempts to get any business from the customer at all. That is because it is selling the customer only 30 units over which it has to spread a \$900 discount while Intel can spread it out over 90. At the end of the day, this creates a serious competitive disadvantage for AMD. As shown in the example, AMD is forced to discount its price three times as much as Intel just to match the Intel discount—not because its processors are inferior—far from it—but because Intel has assured for itself—by its past predatory practices—a significant base of assured demand which enables Intel to inexpensively spread its first-dollar discount. Importantly, this new base of demand—driven by the OEM’s purchasing—will enable Intel to repeat its exclusionary practice when the next line of models is unveiled.

66. At least in the short run, most if not all of the major OEMs must engage significantly with Intel: (1) because AMD is too small to service all their needs while continuing to satisfy other customer demand; (2) because to meet customer expectations, OEMs must assure commercial computer buyers that specifications, including the microprocessor, will remain unchanged during the product’s lifecycle; and (3) because Intel has encouraged end-users to specify that processors be of the same family among similar computers in one installation, as this is perceived to increase

reliability (although technically this is not the case). Intel uses its retroactive discounts to make its large, captive market share self-perpetuating. In any one quarter, AMD cannot economically match Intel's retroactive rebate because it competes for too small a share of the customer's volume over which to spread the dollars necessary to equal the customer's total Intel cost savings. As a result, it loses the business and thus goes into the next selling cycle with Intel imbedded in additional customer product over which Intel can spread its rebates. This serves again to artificially constrain AMD's opportunity to match Intel's ensuing round of retroactive discounts. Intel's intertemporal leveraging of its market share effectively forecloses AMD from ever having a fair opportunity to compete.

67. Intel exacts a severe penalty from OEMs who fail to meet their targets. For example, during the fourth quarter of 2004, AMD succeeded in getting on the HP retail roadmap for mobile computers, and its products sold very well, helping AMD capture nearly 60% of HP's U.S. retail sales for the quarter. Intel responded by withholding HP's fourth quarter rebate check and refusing to waive HP's failure to achieve its targeted rebate goal. Instead, Intel "allowed" HP to make up the shortfall in succeeding quarters when HP promised Intel at least 90% of HP's mainstream retail business.

68. Intel has deployed a variety of variants of this basic rebate scheme. In the case of one European OEM, for example, Intel imposes the additional condition that the customer purchase target volumes of specific processors, generally microprocessors against which AMD's products compete particularly well. In the case of another, Intel offers as an inducement discounted microprocessors rather than rebates. In the case of the European division of one U.S. OEM, Intel has imposed a target of between 70-90% of the customer's requirements. Rather than qualifying the customer for a cash rebate, however, meeting the target entitles the OEM to purchase designated processors at up to 20% below "normal" cost, thereby enabling the customer to obtain

favorable pricing on bundled products (*e.g.*, a Centrino-series processor and chipset) and/or to receive product offerings not available to competitors.

69. Intel makes similar offers to smaller OEMs but they are generally unwritten, and Intel leaves undefined the consequences of failing to meet a target. Thus, a customer falls short at its peril, knowing only that it may lose its account with Intel and have to source future products from Intel distributors, which is both more expensive and provides less security of supply than direct purchase.

70. The salient features of all of Intel's rebate schemes are that they are discriminatory and market-foreclosing. If the customer chooses to purchase any significant quantity of microprocessors from AMD, it will not qualify for its rebate, and its price will be higher on all the Intel processors it buys across the board. By tailoring targets to each customer's size and anticipated volume, Intel locks up significant percentages of the market much more effectively and at a lesser cost to itself—but to a greater harm to AMD and ultimately consumers—as compared to offering such rebates for comparable purchase levels to all customers on a nondiscriminatory basis.

71. Intel's use of retroactive rebates leads, in some cases, to below-cost pricing on incremental sales. The following example shows why a customer's incremental cost of purchasing from Intel those units that both Intel and AMD could supply (the "contested sales") can be zero or even negative—a price AMD cannot match. Consider an OEM which has purchased 90 units of Microprocessor A at \$100 per unit under an Intel rebate scheme that entitles it to a 10% first-dollar discount but only after it purchases more than 90 units. Its cost for the 90 processors is \$9,000. The OEM is now considering an additional purchase of a further 10 units. If it makes the additional purchase from Intel, the OEM will meet the expenditure condition and will qualify for the 10% per unit discount on all units. Accordingly, the total spent will remain \$9,000. The incremental cost of the 10 additional microprocessors—as well as Intel's incremental revenue—will be zero (the \$1,000 additionally spent, less the \$1,000 thereby saved). In

other words, this scheme leads to incremental units being offered to the OEMs for nothing, leaving AMD hopelessly boxed out.

72. Importantly, even if Intel were to earn some incremental revenue on these marginal units, these additional revenues could be below the incremental cost of their production. As a result, Intel's additional profit on the sale would be negative, but for the fact that it had a long-run exclusionary effect on AMD. (Obviously, if Intel earns no revenues on its additional sales, it has to be foregoing profits.) As this analysis shows, some of Intel's discriminatory, retroactive rebates amount to unlawful, predatory below-cost pricing.

73. Even where Intel's prices are above cost on the incremental volumes and overall despite its retroactive rebate schemes, these rebates enable Intel to lower prices selectively in the contested market segment while maintaining higher prices in its captive market. For example, Intel can offer rebates which are granted across the entire volume of sales but which are triggered only if the OEM increases its purchases beyond the portion of its requirements which is captive to Intel. Indeed, Intel can even price above the "monopoly" level for the volumes below the benchmark and offer huge discounts for additional purchases knowing full well that the OEM will not buy less than the benchmark and, instead, source the overwhelming share of its purchases from Intel thereby "qualifying" for the putative rebate while at the same time denying AMD any reasonable volume opportunity.

74. The use of retroactive rebates to limit AMD to a small share of an OEM's business heightens the obstacle to inducing the OEM to launch AMD-powered platforms. OEMs incur substantial expense in designing and engineering a new computer, and make the investment only if they foresee a substantial chance of selling a sufficient volume to recoup it. Intel's rebate and other business strategies effectively cap the volumes of AMD-powered products that an OEM can sell. Hence, Intel's practices exacerbate normal impediments to entry and expansion.